

## CLAIMS

What is claimed is:

1. A method comprising:  
forming a conductive structure having a cavity;  
injecting a phase change material into the cavity;  
injecting a plurality of spheres into the cavity; and  
sealing the cavity.
2. The method of claim 1, wherein forming a conductive structure having a cavity comprises:  
forming a conductive structure having a cavity including a cavity surface having a plurality of ramp structures formed on the cavity surface.
3. The method of claim 1, wherein injecting a phase change material into the cavity comprises:  
injecting TH58 into the cavity.
4. The method of claim 1, wherein injecting a plurality of spheres into the cavity comprises:  
injecting a plurality of solid spheres into the cavity.
5. The method of claim 1, wherein sealing the cavity comprises:  
closing an injection hole in the heat sink.

6. An apparatus comprising:
  - a phase change material;
  - a plurality of particles intermixed with the phase change material; and
  - a conductive structure encapsulating the phase change material, the conductive structure having a cavity including a cone shape.
7. The apparatus of claim 6, wherein the cone shape comprises a flat top cone.
8. The apparatus of claim 7, further comprising a die thermally coupled to the conductive structure, the die being centered on the flat top cone.
9. The apparatus of claim 6, further comprising a die thermally coupled to the conductive structure, wherein the cone shape includes a point, the die being centered on the point.
10. The apparatus of claim 9, wherein the phase change material comprises TH58.
11. An apparatus comprising:
  - a phase change material;
  - a plurality of particles intermixed with the phase change material; and
  - a conductive structure encapsulating the phase change material and the plurality of particles, the conductive structure including a cavity having a first sloping surface and the cavity formed from a pair of symmetrical structures coupled together.
12. The apparatus of claim 11, wherein the phase change material includes TH58.

13. The apparatus of claim 12, wherein the plurality of particles includes spheres.
14. An apparatus comprising:
  - a phase change material;
  - a plurality of particles intermixed with the phase change material; and
  - a conductive structure encapsulating the phase change material and the plurality of particles, the conductive structure including a cavity having a first sloping surface, wherein the first sloping surface comprises a wedge running along a length of the cavity.
15. The apparatus of claim 14, wherein the conductive structure includes copper.
16. The apparatus of claim 15, wherein the conductive structure includes a plurality of fins.